AMENDMENTS TO THE CLAIMS

The listing of the claims will replace all prior listings of claims in the application.

Listing of Claims

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Currently Amended) A frequency conversion apparatus ~~as claimed in claim 1,~~ comprising:

a filter having a fixed cut-off frequency for restricting a band of a reception signal so as to selectively pass only a first frequency band component;

an amplifier for amplifying the reception signal having passed through the filter;

a variable filter having a variable cut-off frequency for further restricting the band of the reception signal having been amplified by the amplifier, so as to cut off at least part of the first frequency band component and thereby to selectively pass only a second frequency band component; and

a mixer for mixing the reception signal having passed through the variable filter with a local oscillation signal,

wherein the variable filter is built by serially connecting together ~~composed of~~ a variable low-pass filter for selectively passing only a low band component of a signal inputted thereto and a variable high-pass filter for selectively passing only a high band

component of a signal inputted thereto, the cut-off frequency of the variable filter being controlled to vary according to a reception channel signal, and ~~connected in series, the variable low-pass filter selectively permitting passage of only low-band components of the input signal and the variable high-pass filter selectively permitting passage of only high-band components of the input signal~~

wherein the amplifier cuts off reflected waves that fall outside a pass band of the variable filter.

5. (Currently Amended) A frequency conversion apparatus ~~as claimed in claim1,~~ comprising:

a filter having a fixed cut-off frequency for restricting a band of a reception signal, so as to selectively pass only a first frequency band component;

an amplifier for amplifying the reception signal having passed through the filter;

a variable filter having a variable cut-off frequency for further restricting the band of the reception signal having been amplified by the amplifier so as to cut off at least part of the first frequency band component and thereby to selectively pass only a second frequency band component; and

a mixer for mixing the reception signal having passed through the variable filter with a local oscillation signal,

wherein the variable filter is a variable high-pass filter ~~that~~ for selectively ~~permits passage of~~ passing only a high-band ~~components~~ component of ~~the input~~ a signal inputted thereto, the cut-off frequency of the variable filter being controlled to vary according to a reception signal, and

wherein the amplifier cuts off reflected waves that fall outside a pass band of the variable filter.

6. (Currently Amended) A frequency conversion apparatus as claimed in claim ~~1~~ 4,

wherein the cut-off frequency of the variable filter is controlled by use of a phase-locked loop circuit that controls a frequency of the local oscillation signal.

7. (Currently Amended) A frequency conversion apparatus as claimed in claim ~~1~~ 4,

wherein the cut-off frequency of the variable filter is controlled by a voltage synthesizing method.

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Currently Amended) A ~~The~~ method ~~as claimed in claim 8,~~ of reducing unwanted signals in a frequency conversion apparatus comprising:

restricting a band of a reception signal with a filter having a fixed cut-off frequency so as to selectively pass only a first frequency band component;

amplifying the reception signal with an amplifier, having passed through the filter;

restricting the band of the reception signal having been amplified with a variable filter having a variable cut-off frequency, so as to cut off at least part of the first frequency band component and thereby to selectively pass only a second frequency band component; and

mixing the reception signal having passed through the variable filter with a local oscillation signal,

wherein the variable filter ~~is composed of~~ built by serially connecting together a variable low-pass filter for selectively passing only a low band component of a signal inputted thereto and a variable high-pass filter for selectively passing only a high band component of a signal inputted thereto, the cut-off frequency of the variable filter being controlled to vary according to a reception channel signal ~~connected in series, the variable low-pass filter selectively permitting passage of only low-band components of the input signal and the variable high-pass filter selectively permitting passage of only high-band components of the input signal~~, and

wherein the amplifier cut off reflected waves that fall outside a pass band of the variable filter.

12. (Currently Amended) A ~~The~~ method ~~as claimed in claim 8,~~ of reducing unwanted signals in a frequency conversion apparatus comprising:

restricting a band of a reception signal with a filter having a fixed cut-off frequency, so as to selectively pass only a first frequency band component;

amplifying the reception signal with an amplifier, having passed through the filter;

restricting the band of the reception signal having been amplified with a variable filter having a variable cut-off frequency, so as to cut off at least part of the first frequency band component and thereby to selectively pass only a second frequency band component; and

mixing the reception signal having passed through the variable filter with a local oscillation signal,

wherein the variable filter is a variable high-pass filter ~~that~~ for selectively ~~permits passage of~~ passing only a high-band ~~components~~ component of ~~the input~~ a signal inputted thereto, the cut-off frequency of the variable filter being controlled to vary according to a reception signal, and

wherein the amplifier cuts off reflected waves that fall outside a pass band of the variable filter.

13. (Currently Amended) The method as claimed in claim ~~8~~ 11,

wherein the cut-off frequency of the variable filter is controlled by use of a phase-locked loop circuit that controls a frequency of the local oscillation signal.

14. (Currently Amended) The method as claimed in claim ~~8~~ 11,

wherein the cut-off frequency of the variable filter is controlled by a voltage synthesizing method.

15. (New) A frequency conversion apparatus as claimed in claim 5,

wherein the cut-off frequency of the variable filter is controlled by use of a phase-locked loop circuit that controls a frequency of the local oscillation signal.

16. (New) A frequency conversion apparatus as claimed in claim 5,

wherein the cut-off frequency of the variable filter is controlled by a voltage synthesizing method.

17. (New) The method as claimed in claim 12,

wherein the cut-off frequency of the variable filter is controlled by use of a phase-locked loop circuit that controls a frequency of the local oscillations signal.

18. (New) The method as claimed in claim 12,

wherein the cut-off frequency of the variable filter is controlled by a voltage synthesizing method.